

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A recording medium including recorded data, comprising:
an information area for recording disc management information and/or data; and
~~physical mark information recorded as a wobbled pit pattern, the physical mark~~
~~information recorded in an area not writeable by end-user recorders, the area not writeable by~~
~~end-user recorders preceding a lead-in area, the physical mark information identifying a type of~~
~~the recording medium, and the lead-in area including a high-frequency-modulated groove.~~
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Original) A recording medium according to claim 1, wherein the physical mark information is recorded as mark/space with respect to a high-frequency-modulated groove.

6. (Original) A recording medium according to claim 5, wherein the mark/space are aligned with one another in each recording field of a high-frequency-modulated groove.
7. (Original) A recording medium according to claim 5, wherein the physical mark information is recorded as at least one mark/space, wherein each mark/space pair include a mark and a space each having an variable length.
8. (Original) A recording medium according to claim 7, wherein each mark and space of the mark/space pairs are aligned with one another in each recording field of a high-frequency-modulated groove.
9. (Original) A recording medium according to claim 8, wherein a length of the mark and space of each recording field is determined to be a different length in accordance with a data value associated with the recording field.
10. (Currently Amended) A recording medium according to claim 1, wherein the physical mark information is recorded on a position of the recording medium detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.
11. (Previously Presented) A recording medium according to claim 1, wherein the physical mark information is in an area of the disc where writing of data is impossible after manufacture of the recording medium, the physical mark information is a Blu-ray Disc Read-

Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.

12. (Currently Amended) A recording medium according to claim 1, wherein the physical mark information is recorded in at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end-user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium.

13. (Currently Amended) A method of forming a recording medium, comprising:
forming an information area for recording disc management information and/or data;
and
forming physical mark information as a wobbled pit pattern, the physical mark information recorded in an area not writeable by end-user recorders, the physical mark information identifying a type of the recording medium, the area not writeable by end-user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high-frequency-modulated groove.

14. (Cancelled)

15. (Previously Presented) A method of claim 13, wherein the physical mark information is formed as mark/space with respect to a high-frequency-modulated groove.

16. (Original) A method of claim 15, wherein the mark/space are aligned with one another in each recording field of a high-frequency-modulated groove.

17. (Currently Amended) A method of claim 13, wherein the physical mark information is recorded on a position of the recording medium formed to be detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

18. (Previously Presented) A method of claim 13, wherein the physical mark information is formed in an area of the disc where writing of data is impossible after manufacture of the recording medium, the physical mark information is a Blu-ray Disc Read-Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.

19. (Currently Amended) A method of claim 13, wherein the physical mark information is recorded in at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end-user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium.

20. (Currently Amended) A method of reproducing data from a recording medium, comprising:

utilizing physical mark information to control reproduction of the recorded data, wherein
~~the physical mark information has been recorded as a wobbled pit pattern in an area of the recording medium, recorded in an area not writeable by end-user recorders, the area not writeable by end-user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high-frequency-modulated groove.~~

21. (Cancelled)

22. (Previously Presented) A method of claim 20, wherein the physical mark information has been recorded as mark/space with respect to a high-frequency-modulated groove.

23. (Currently Amended) A method of claim 22, wherein the mark/space are aligned with one another in each recording field of a high-frequency-modulated groove.

24. (Currently Amended) A method of claim 20, wherein the physical mark information is recorded on a position of the recording medium detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

25. (Previously Presented) A method of claim 20, wherein the physical mark information is reproduced from an area of the disc where writing of data is impossible after manufacture of the recording medium, the physical mark information is a Blu-ray Disc Read-

Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.

26. (Currently Amended) A method of claim 20, wherein the physical mark information is reproduced from at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end-user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium.

27. (Currently Amended) A method of recording data on a recording medium, comprising:

recording the data in an information area; and
recording physical mark information ~~as a wobbled pit pattern~~ in an area of the information area, which controls reproduction of the recorded data, the physical mark information recorded in an area not writeable by end-user recorders, the area not writeable by end-user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high-frequency-modulated groove.

28. (Cancelled)

29. (Cancelled)

30. (Currently Amended) A method of claim 29, wherein the mark/space are aligned with one another in each recording field of a high-frequency-modulated groove.

31. (Currently Amended) A method of claim 27, wherein the physical mark information is recorded on a position of the recording medium to be detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

32. (Previously Presented) A method of claim 27, wherein the physical mark information is recorded in an area of the disc where writing of data is impossible after manufacture of the recording medium, the physical mark information is a Blu-ray Disc Read-Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.

33. (Currently Amended) A method of claim 27, wherein the physical mark information is recorded in at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end-user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium.

34. (Currently Amended) An apparatus for reproducing data from a recording medium, the apparatus comprising:
a pickup configured to reproduce information from the recording medium; and

a controller configured to control the pickup to reproduce said apparatus utilizing physical mark information from the recording medium, the controller configured to utilize the physical mark information to control further reproduction of the recorded data recorded on the recording medium, wherein the physical mark information has been recorded as a wobbled pit pattern in an area of the recording medium, the physical mark information recorded in an area not writeable by end-user recorders, the area not writeable by end-user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high-frequency-modulated groove.

35. (Cancelled)

36. (Previously Presented) An apparatus of claim 34, wherein the physical mark information has been recorded as mark/space with respect to a high-frequency-modulated groove.

37. (Original) An apparatus of claim 36, wherein the mark/space are aligned with one another in each recording field of a high-frequency-modulated groove.

38. (Currently Amended) An apparatus of claim 34, wherein the physical mark information is recorded on a position of the recording medium detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

39. (Previously Presented) An apparatus of claim 34, wherein the physical mark information is reproduced from an area of the disc where writing of data is impossible after manufacture of the recording medium, the physical mark information is a Blu-ray Disc Read-Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.

40. (Currently Amended) An apparatus of claim 34, wherein the physical mark information is reproduced from at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end-user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium.